BHARATI VIDYAPEETH'S
INSTITUTE OF COMPUTER APPLICATIONS & MANAGEMENT (BVICAM)
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Course Code: MCA-107 Course Name: Computer Organization

Class Test 1

Time: 1 Hour Max Marks: 20

Q1 to Q10 carries 1 marks each

1. A collection of lines that connects several devices is called:
   a. peripheral connection wires
   b. bus
   c. Both a and b
   d. Internal wires
2. A complete microcomputer system consist of
   a. microprocessor
   b. memory
   c. peripheral equipment
   d. all of the above
3. PC Program Counter is also called
   a. instruction pointer
   b. memory pointer
   c. file pointer
   d. data counter
4. _____ is used to choose between incrementing the PC or performing ALU operations
   a. Conditional codes
   b. Multiplexer
   c. Control unit
   d. None of these
5. The ultimate goal of a compiler is to
   a. Reduce the clock cycles for a programming task.
   b. Reduce the size of the object code.
   c. Be versatile.
   d. Be able to detect even the smallest of errors
6. The instructions like MOV or ADD are called as
   a. OP-Code
   b. Commands

c. Operators
d. None of the above

7. The pipeline operates on a stream of instruction by overlapping the phases of instruction cycle is:
   (a) Arithmetic pipeline
   (b) Parallel pipeline
   (c) Multiple pipeline
   (d) Instruction Pipeline
8. Data transfer between the main memory and the CPU register takes place through two registers namely
   (a) MAR and Accumulator
   (b) general purpose register and MDR
   (c) accumulator and program counter
   (d) MAR and MDR
9. _____ is concerned with the way the hardware components operate to form computer system.
   (a) Computer design
   (b) Computer architecture
   (c) Computer implementation
   (d) Computer Organization
10. Striking key stores the corresponding character code in a 8-bit buffer register associated with the keyboard. This register is called as
    (a) Data in out
    (b) Data out
    (c) Both A and B
    (d) Data In
11. Design an arithmetic circuit with one selection variable S and two n-bit data inputs A and B. The circuit generates the following four arithmetic operations in conjunction with the input carry Cin .Draw the logic diagram for the first two stages (5 Marks)

    Cin =0 Cin =1
    0:D=A+B(add) D=A+1(Increment)
    1:D=A-1(Decrement) D=A+B'+1(subtract)

12. Design 4-bit Adder-subtractor. (5 Marks)